

What is claimed is:

1. A battery comprising:
a substrate;
a cathode on the substrate, the cathode having a surface;
a cathode current collector comprising one or more conducting lines that contact the surface of the cathode;
an electrolyte at least partially extending through the conducting lines of the cathode current collector to contact the cathode; and
an anode contacting the electrolyte.
2. A battery according to claim 1 wherein the cathode current collector is between electrolyte and the cathode.
3. A battery according to claim 1 wherein the cathode current collector is absent a non-reactive metal containing material.
4. A battery according to claim 1 wherein the cathode current collector comprises aluminum, cobalt, copper, nickel, titanium, tantalum, vanadium, zirconium, and alloys and compounds mixtures thereof.
5. A battery according to claim 1 wherein the conducting lines comprise elongated prongs extending from a base prong.
6. A battery according to claim 1 wherein the conducting lines contact less than 80% of the area of the surface of the cathode.
7. A battery according to claim 1 wherein the substrate comprises mica.

8. A battery according to claim 1 wherein the cathode comprises lithium cobalt oxide.

9. A battery according to claim 1 comprising an anode current collector contacting the anode.

10. A method of fabricating a battery, the method comprising:
forming a substrate;
forming a cathode on the substrate, the cathode having a surface;

forming a cathode current collector comprising one or more conducting lines that contact the surface of the cathode;

forming an electrolyte at least partially extending through the conducting lines of the cathode current collector to contact the cathode; and

forming an anode contacting the electrolyte.

11. A method according to claim 10 comprising forming the cathode current collector between electrolyte and the cathode.

12. A method according to claim 10 comprising forming one or more conducting lines having elongated prongs extending from a base prong.

13. A method according to claim 10 comprising forming the conducting lines by placing a mask on the substrate and depositing material through the openings of the mask.

14. A method according to claim 13 comprising depositing the material by physical vapor deposition.

15. A method according to claim 14 comprising depositing material

comprising a metal containing material.

16. A method according to claim 10 comprising forming conducting lines that contact less than 80% of the area of a surface of the cathode.

17. A method according to claim 10 comprising forming a substrate comprising mica.

18. A method according to claim 10 comprising forming a cathode comprising lithium cobalt oxide.

19. A method according to claim 10 comprising forming an anode current collector contacting the anode.

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